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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/182,626 | 10/29/1998 | DAVID E. WANG | QCPA471 | 2210 |

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Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
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EXAMINER

TRAN, HENRY N

ART UNIT PAPER NUMBER

2674

DATE MAILED: 06/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/182,626

Applicant(s)

WANG ET AL.

Examiner

HENRY N. TRAN

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 57-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 57 is/are rejected.
- 7) ☒ Claim(s) 58-61 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 October 1998 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office action is in response to the applicants' amendment received 1/18/05. The amendments to the claims have been entered. Claims 57-61 are pending in this application.

Applicant's remarks have been fully considered, with the results set forth as follows.

Drawings

1. The corrected Fig. 6 was not received on 1/18/05 (the attached substitute drawing sheet for Fig. 6 was not found in the above identified Amendment).
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claimed elements: "a microprocessor" (claims 57 and 58), "a bypassing circuit" and "a pull-up resistor" (claim 61) must be shown or the features canceled from the claims. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet"

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pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities: the claimed feature “a bypassing circuit” and “a pull-up resistor” defined in claim 61 have no clear support in the specification.

For the purpose of this Office action, the examiner assumes that:

- (i) the “a bypassing circuit” comprises at least a transistor 66 and a resistor, e.g., R2; and
- (ii) the “a pull-up resistor” comprises a resistor, e.g., R, connected between the source and drain of the transistor 66.

Appropriate correction is required.

Claim Objections

4. Claim 58 is objected to because of the following informalities: The status identifier (i.e., (new)) for claim 58 is missing. Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claim 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over Metroka et al (U.S. Patent No. 5,175,759, hereinafter referred to as "Metroka") in view of Bowen et al (U.S. Patent No. 6,046,730, hereinafter referred to as "Bowen")

Metroka teaches generally all including: a flip 104; a keypad 110; a body 102 connected to the flip by a hinge 112 and 114; a computer processor 502; a pin contact 306 having a contact conductance 302 dependent on the position of the flip relative to the body for providing an electrical connection; and the body comprising a processor 502 configured to provide interface to the user and the keypad 110 by connecting power to the keypad by utilizing power switch 508 and connecting a power supply to the keypad lighting circuit, which comprises a plurality of light emitting diodes (LEDs) 536-541 and a switch transistor 543 coupled to the microprocessor 502 for illuminating backlighting; see Fig. 1-3 and 5; col. 3, lines 14-33; and col. 3, line 65 to col. 4, line 28; col. 6, lines 23-34.

However, Metroka does not teach: (i) a flip comprising a keypad and a keypad lighting circuit; and (ii) the body comprising a multiplexing circuit configured to alternate between connecting power to the keypad lighting circuit and connecting the keypad to a microprocessor through the pin contact.

Bowen teaches a multimedia terminal (MMT) 10 comprising: (i) a keypad 26 mounted on a flip 14 (a keyboard cover 14) configured to provide interface to the user and the keypad 26 by connecting power to the keypad by utilizing a microprocessor 50; and (ii) and a keyboard cover sensor 40 for providing input commands to the microprocessor 50; see Figs. 1A, 2A and 4; col. 4, lines 31-43; and col. 5, lines 31-42; col. 6, lines 9-30.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teachings of Metroka and of Bowen for producing the claimed invention by using the microprocessor as a multiplexing circuit for alternately connecting a power supply to the keypad lighting circuit and the keypad through the pin contact 306 as taught by Metroka and having keypad and keypad lighting circuit arranged on the flip as taught by Bowen because this would provide an improved user-friendly multimedia device that is compact, easily and conveniently to use. By this rationale, claim 57 is rejected.

Allowable Subject Matter

7. Claims 58-61 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments with respect to claims 57-61 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

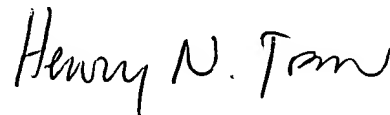
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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HENRY N. TRAN whose telephone number is 571-272-7760. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, PATRICK N. EDOUARD can be reached on 571-272-7603. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



HENRY N TRAN
Primary Examiner
Art Unit 2674

6/2/05